REMARKS

An editorial change has been made in claim 1 that is consistent with the previous changes that were made in the language of claim 1 in Applicants' previous response.

In the Office Action dated September 1, 2005, claims 1, 10 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Smith et al in view of Kneezel et al. Claims 2-4, 6-8 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over Smith et al in view of Kneezel et al, further in view of Bullock et al. Claims 5 and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Smith et al in view of Kneezel et al and Bullock et al, further in view of Berson.

These rejections are respectfully traversed for the following reasons.

The arrangement claimed in claim 1 of the present application requires a memory that is accessible by the control unit having a first memory area in which warm-up data are stored in re-writable fashion, and a second memory area containing data representing at least two predetermined conditions, the two predetermined conditions being selected from the group consisting of temperature-related conditions, history-related conditions and user-related conditions. The arrangement also includes an ambient temperature sensor. The control unit implements at least one measurement of the ambient temperature with the aforementioned sensor, and then determines warm-up data for a fast start dependent on the ambient temperature and dependent on the at least two predetermined conditions. This means that the control unit formulates the warm-up data for the fast start dependent not only on the ambient temperature, but also

dependent on at least two of temperature-related conditions, history-related conditions and user-related conditions.

Applicants respectfully submit the Smith et al reference is extremely general and uninformative as to how, or even if, information contained in the read-only memory section 2b of the microprocessor 2 is used by the pulse generator 24a to generate pulses that are supplied to the print head 21 for any purpose, much less during a warm-up cycle. In Figure 2A of the Smith et al reference, all of the signal lines proceeding from the data processing section 2a to the read-only memory section 2b proceed in one and only one direction, namely *from* the data processing section 2a *to* the read-only memory section 2b. Therefore, it is clear that the data processing section 2a of the microprocessor 2 does not and cannot make use of any of the information stored in the read-only memory section 2b. Although the data processing section 2a includes an input T from a temperature sensor TS located at the printhead 21 (i.e., *not* an ambient temperature sensor) this appears to be only for the purpose of feeding the temperature information through the data processing section 2a, and through the read-only memory section 2b, to the pulse generator 24a. The outputs a through g of the read-only memory section 2b are merely shown in Figure 2B as proceeding into the pulse generator 24a. The only designated or described function that takes place in the pulse generator 24a is to supply warm-up pulses from output b in Figure 2a to a section of the pulse generator 24a in Figure 2B designated "pulse width control." There is no indication whatsoever in the Smith et al reference that anything other than the sensed temperature is used to determine or set the pulse width of the warm-up pulses in the pulse generator 24a. There is not even any indication of how the other information from the read-only memory section

2b is used at all by the pulse generator 24a, but presumably that information is used for normal text printing, since the only disclosed relationship between warm-up pulses and the pulse generator 24a in the Smith et al reference is the aforementioned "pulse width control."

Therefore, even in the context of the non-ambient temperature sensed in the Smith et al reference, there is no disclosure or suggestion in that reference that anything other than this sensed temperature is used to set the pulse width of the warm-up pulses. This is in contrast to the subject matter of claim 1 wherein the ambient temperature is sensed and this ambient temperature is then used, together with at least two other predetermined conditions, to determine the warm-up data with in the control unit that are used for a fast start.

The Examiner relied on the Kneezel et al reference as disclosing a sensor that is able to sense ambient temperature. Applicants agree that the Kneezel et al reference discloses such an ambient temperature sensor, but disagree with the Examiner's conclusion that there is a control unit in the Kneezel et al reference that is programmed to implement a measurement of the ambient temperature using that sensor, and to determine warm-up data for a fast start dependent on the ambient temperature and dependent on at least two predetermined conditions.

As can be seen in Figure 5A of the Kneezel et al reference, the ambient temperature sensor 55 supplies an output to a subthreshold pulse width controller 56. Optionally, the ambient temperature sensor 55 also supplies an output to a look-up table 57, which then supplies an output to the sub-threshold pulse width controller 56. The pulse width is then determined exclusively within the pulse width controller 56, and the already-determined pulse width is then supplied as an output from the

subthreshold pulse width controller 56 to the logic controller 58. Therefore, in the Kneezel et al reference, the logic controller 58 merely receives an already-determined pulse width from the subthreshold pulse width controller 56. The logic controller 58 in the Kneezel et al reference, therefore, does not and cannot determine the pulse width dependent on other factors, since the pulse width has already been determined externally of the logic controller 58 and merely supplied as an input to the logic controller 58.

Therefore, even if the Smith et al reference were modified in accordance with the teachings of Kneezel et al, to use an ambient temperature sensor in place of, or in addition to, the temperature sensor TS disclosed in the Smith et al reference, there still is no teaching or suggestion in either of those references to do anything except use the ambient temperature, by itself, to set a pulse width of pulses that may (possibly) be used in a warm-up cycle. There is no teaching in either the Smith et al or Kneezel et al references to make use of the ambient temperature to determine warm-up data in combination with (dependent on) at least two predetermined conditions from the aforementioned list of predetermined conditions, as set forth in claim 1 of the present application.

Applicants respectfully submit it is only with the benefit of hindsight after reading the present disclosure that the Examiner has assumed that either the Smith et al reference or the Kneezel et al reference makes use of some sort of combination of the ambient temperature and at least two predetermined conditions for determining warm-up data for a fast start.

Therefore, even if the Smith et al reference were modified in accordance with the teachings of Kneezel et al, an arrangement as set forth in claim 1 still would not

result. The subject matter of claim 1, therefore, would not have been obvious to a person of ordinary skill in the field of designing control circuitry for operating an ink jet printer, under the provisions of 35 U.S.C. §103(a), based on the teachings of Smith et al and Kneezel et al.

Claims 10 and 11 add further structure to the non-obvious arrangement of claim 1, and therefore would not have been obvious to a person of ordinary skill in the aforementioned technology based on the teachings of Smith et and Kneezel et al for the same reasons discussed above in connection with claim 1.

The rejection of claims 2-4, 6-8 and 12, and the rejection of claims 5 and 9, both were based on the basic combination of Smith et al and Kneezel et al, modified by the teachings of further references. For the reasons discussed above, even if the Examiner's statements concerning the respective further references are accurate, even if the Smith and Kneezel et al combination were modified in accordance with the teachings of those further references, the subject matter of the aforementioned dependent claims still would not result, in view of the aforementioned deficiencies of the Examiner's basic combination of Smith et al and Kneezel et al.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,

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